

# **Naval Strike Warfare Planning Center (NSWPC)**



## **Strike Planning Folder**

**8 May 2000**



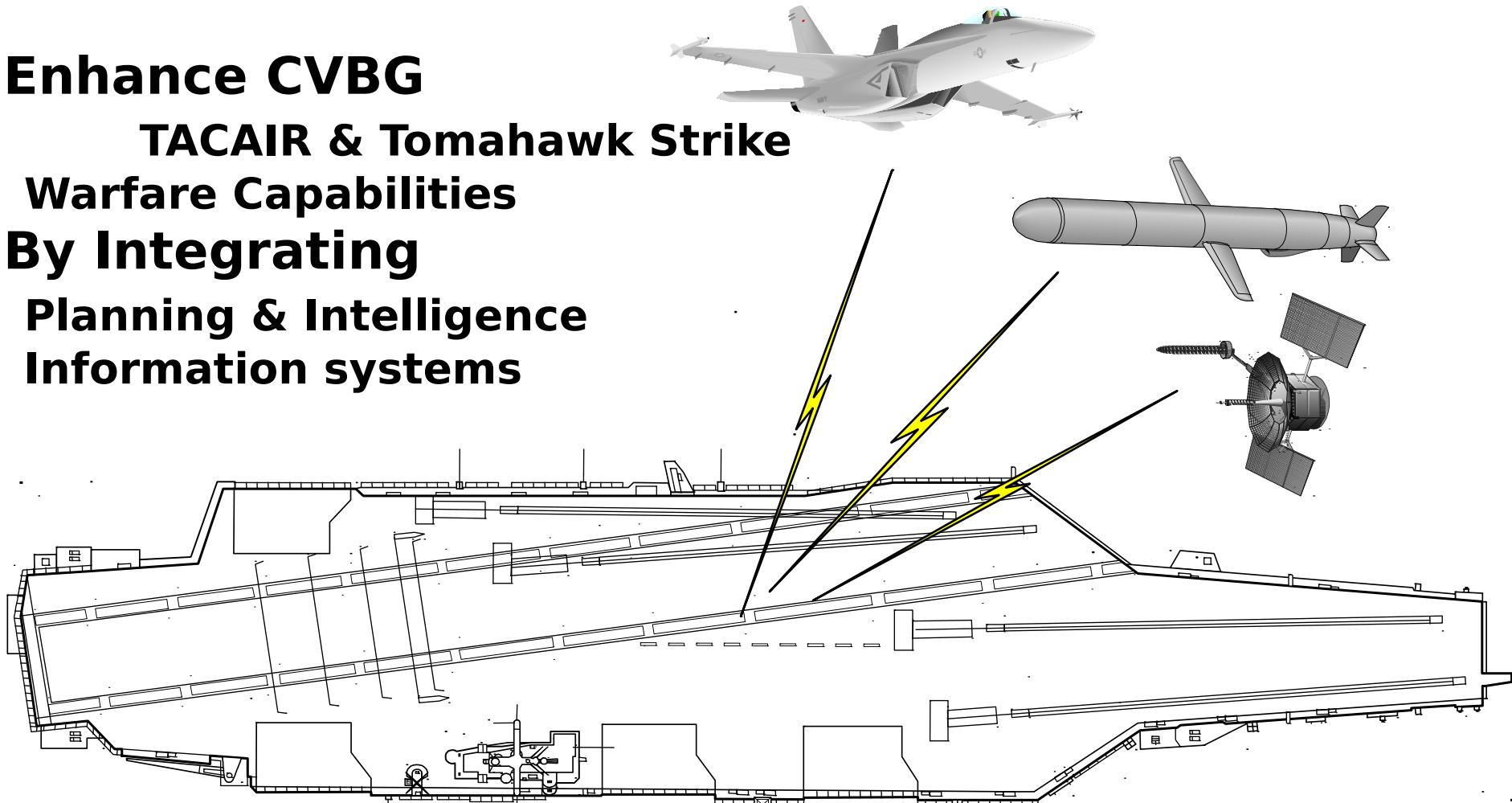
# Agenda

- **NSWPC Introduction & Background**
- **NSWPC Approach**
- **SPF Design**
- **SPF Development Schedule**
- **Summary**



# NSWPC Purpose

**Enhance CVBG  
TACAIR & Tomahawk Strike  
Warfare Capabilities  
By Integrating  
Planning & Intelligence  
Information systems**



**Allows Decision Makers to efficiently manage  
timely information**



# Enhance CVIC's Support to Navy Strike Planners

- **NSWPC improvements are designed to compress strike planning timeline**
  - Improve information gathering and management capabilities
  - Enhance information flow
  - Integrate emerging fleet-preferred tools
  - Promote the sharing of detailed planning information and planning *products*,
  - Reduce duplication of effort
- **Improve CVs ability to support Navy goals for sortie generation, surge operations, and employment of PGMs**
- **Augment integrated and collaborative planning capabilities**
  - Improve ability to collaborate with other CVWs and other, fully modernized carriers



# SCN Funding

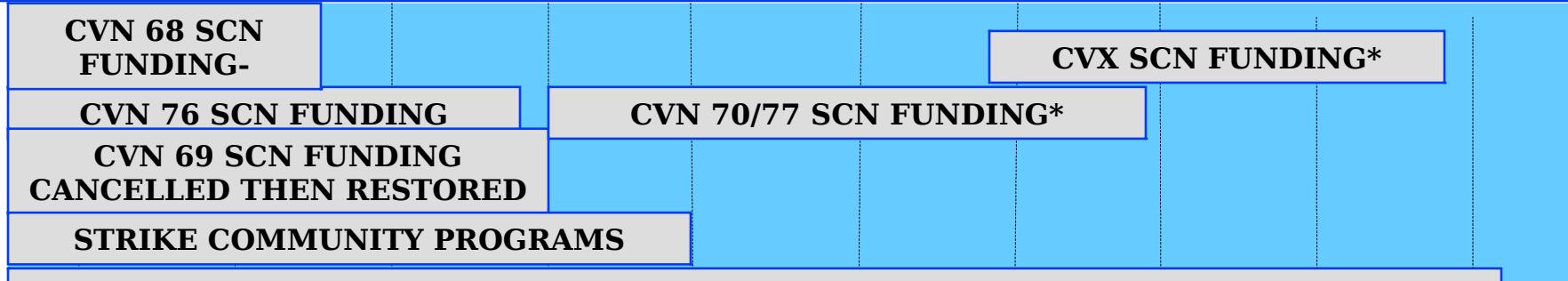
- **Hardware purchase**
- **Integration of existing systems**
- **Integration of existing information**



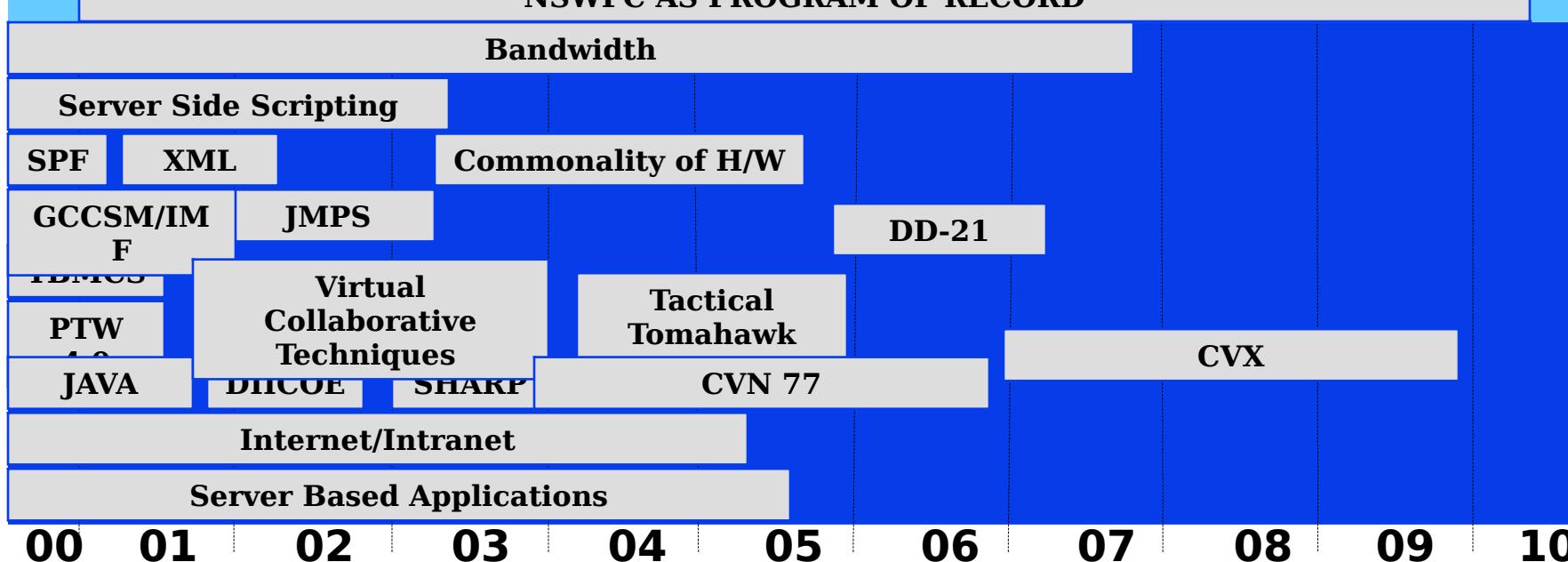


# NSWPC Drivers

Programmatic Drivers



Technology Drivers





# NSWPC Integration Phased Approach

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	→
<b>CVN 68</b>	<b>CVN 69/76</b>	<b>CVN</b>		<b>CVN 71/CVN X</b>						
<b>NSWPC</b> PHASE I CVIC INTEGRATION	<b>NSWPC</b> PHASE II COORDINATED OPS WITH EXTERNAL ORGANIZATIONS	<b>70NSWPC</b> PHASE III JOINT INTEGRATED STRIKE PLANNING		<b>TBD</b>						

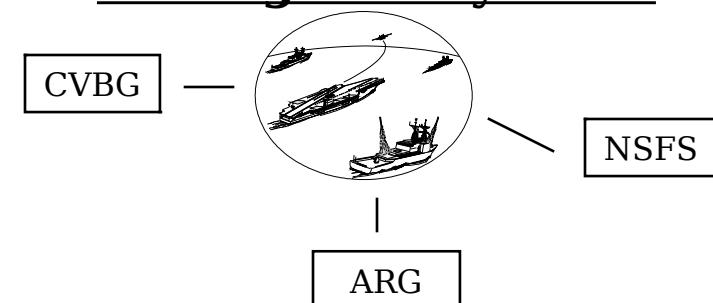
## Strike Warfare

### Operations

- SINGLE CVBG
- WITHIN CVN LIFELINES
- UNIT THROUGH “AP”
- FOCUS ON INFORMATION MANAGEMENT

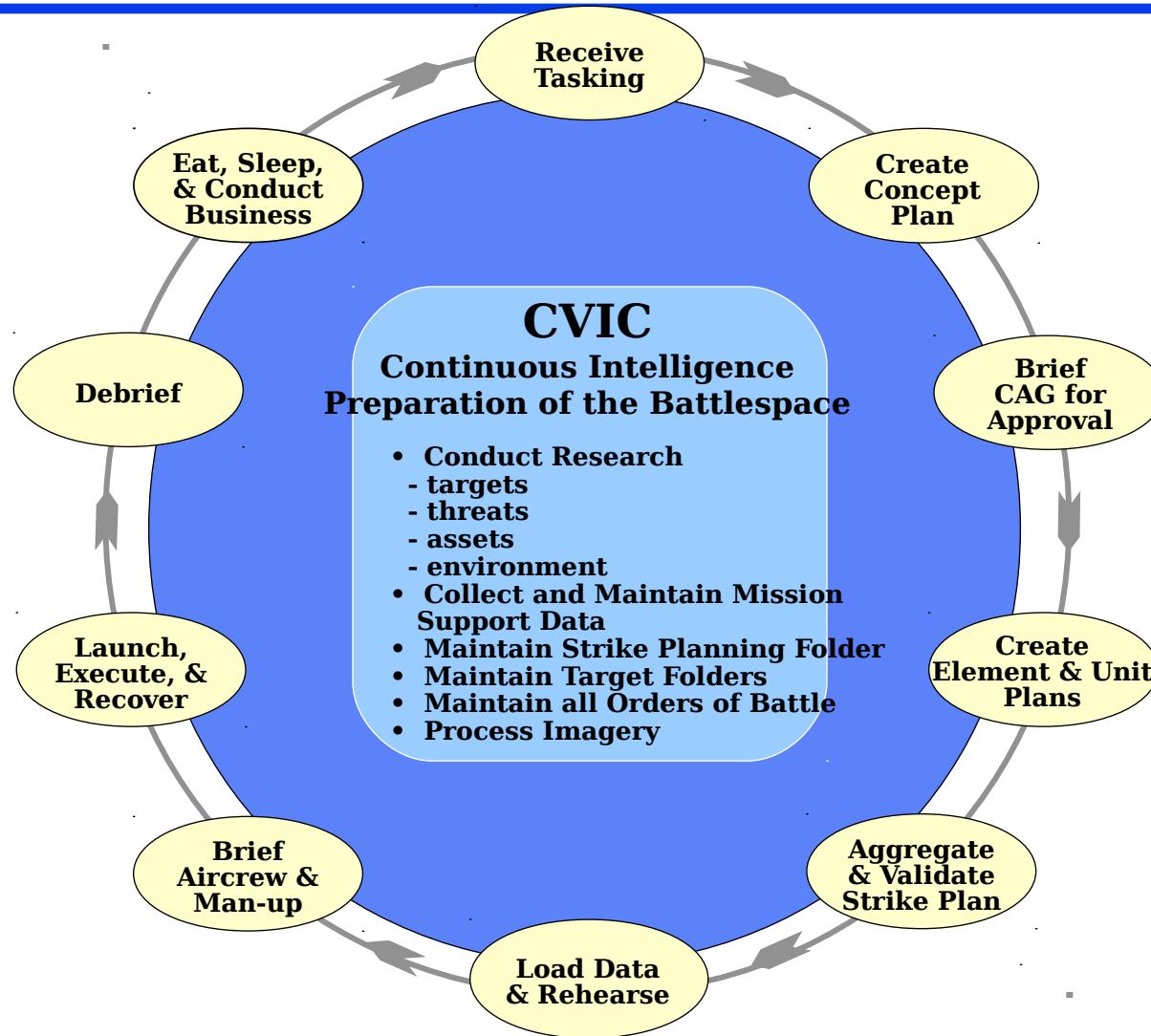
- MULTIPLE CVBG
- ACCOMPANYING ARG/MEU
- IN-THEATER AF UNITS
- FOCUS ON LIAISON AND COORDINATION WITH TASKERS AND OTHER THEATER UNITS

## Mission Planning, Rehearsal, Command and Control, Intelligence Systems



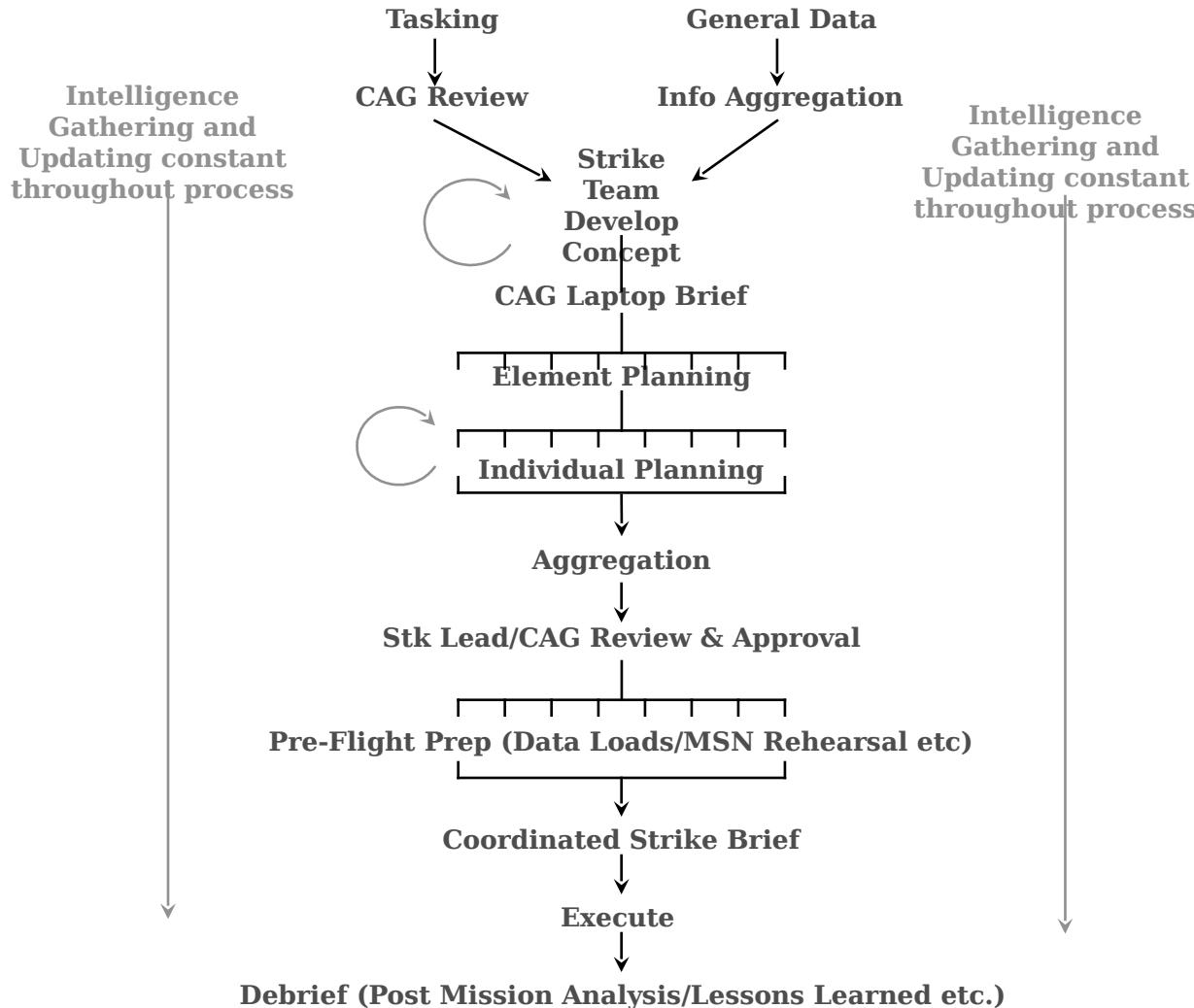


# NAVAL STRIKE and AIR WARFARE CENTER STRIKE PLANNING MODEL

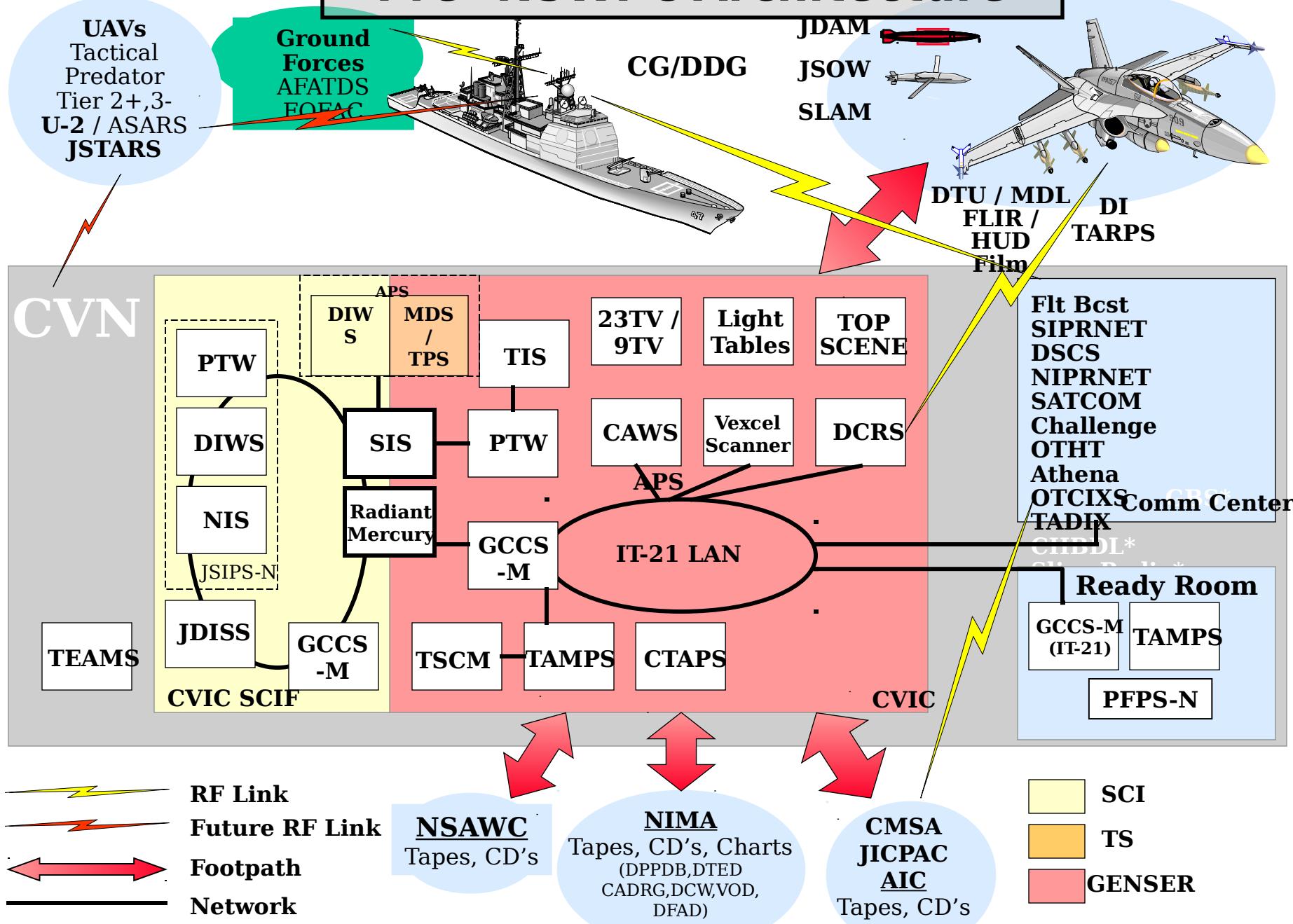




# NAVAL STRIKE and AIR WARFARE CENTER STRIKE PLANNING MODEL

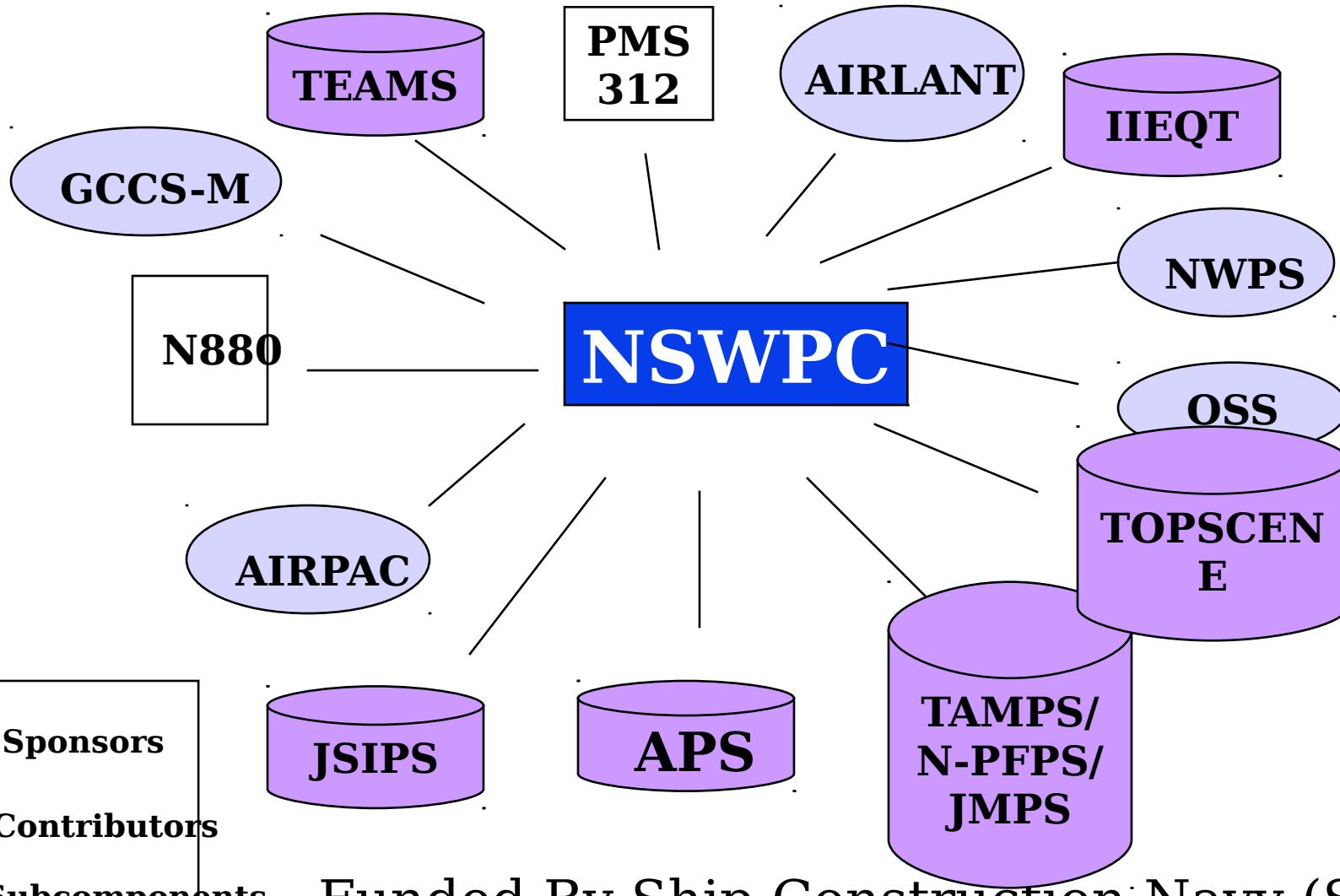


# Pre- NSWPC Architecture





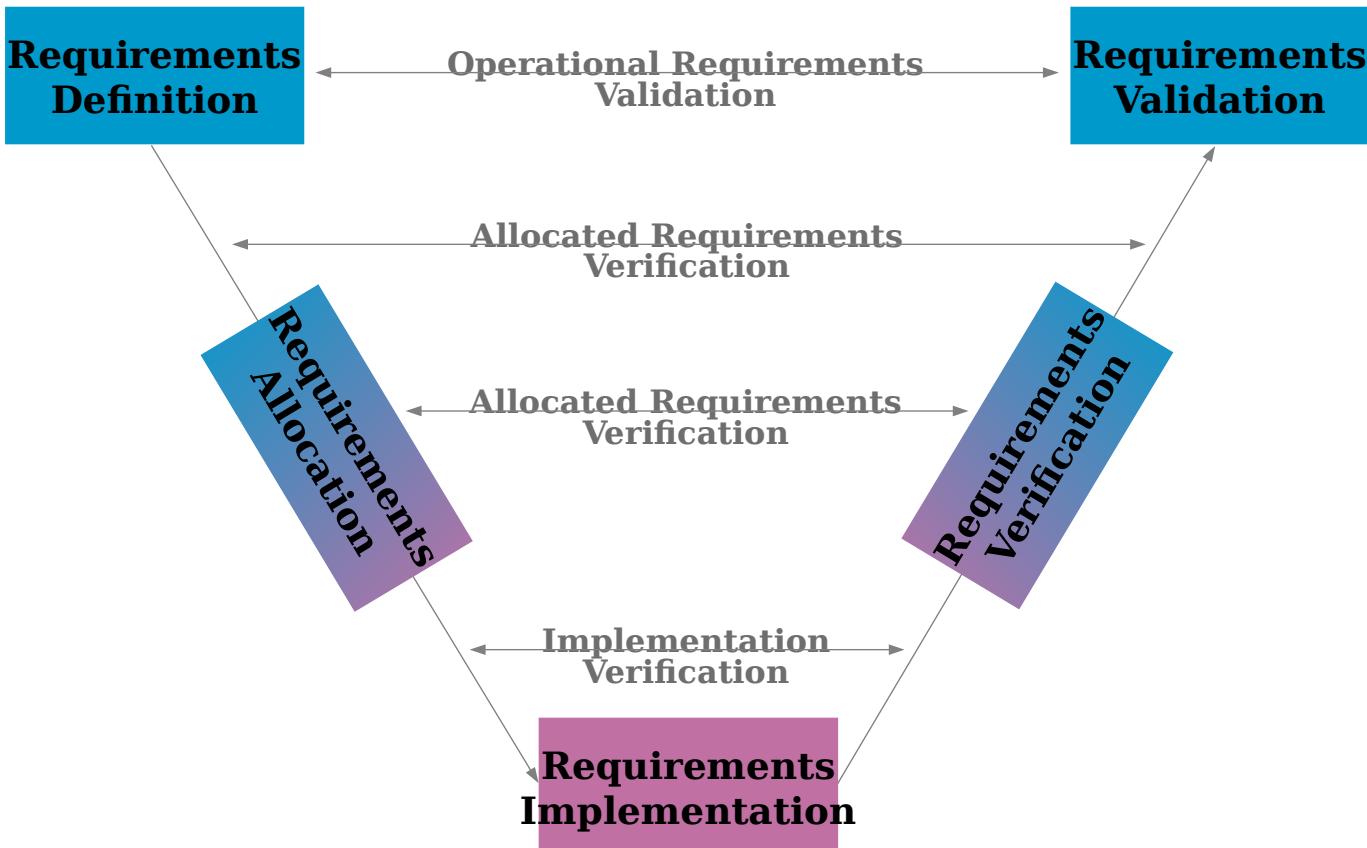
# NSWPC Participants



Funded By Ship Construction Navy (SCN) 11  
Slide 11

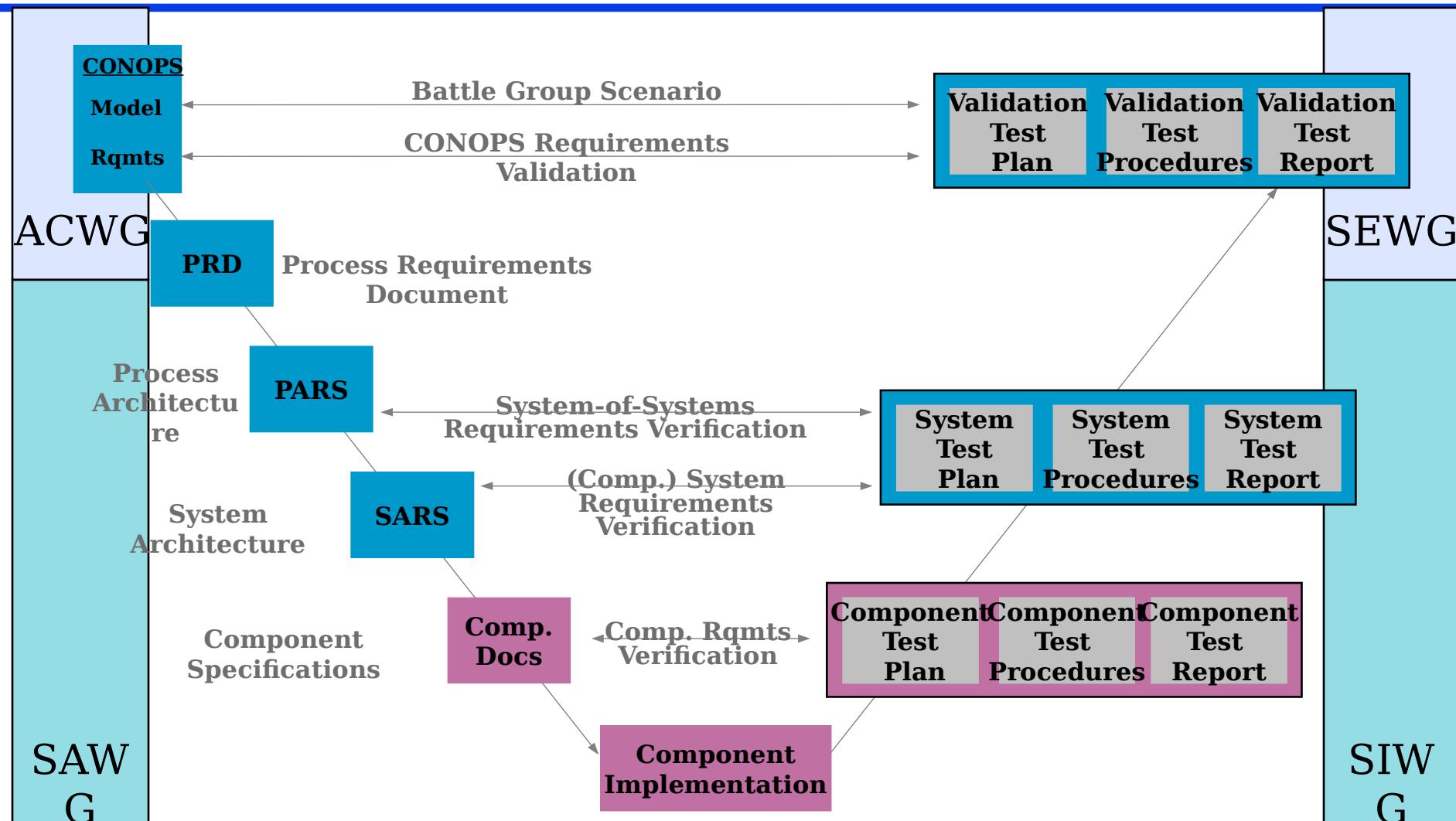


# APPROACH USING SYSTEMS ENGINEERING REQUIREMENTS PROCESS



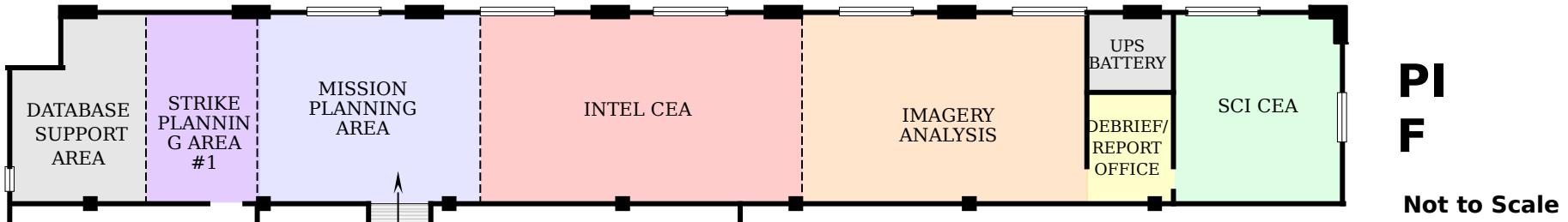


# NSWPC SYSTEMS ENGINEERING REQUIREMENTS PROCESS



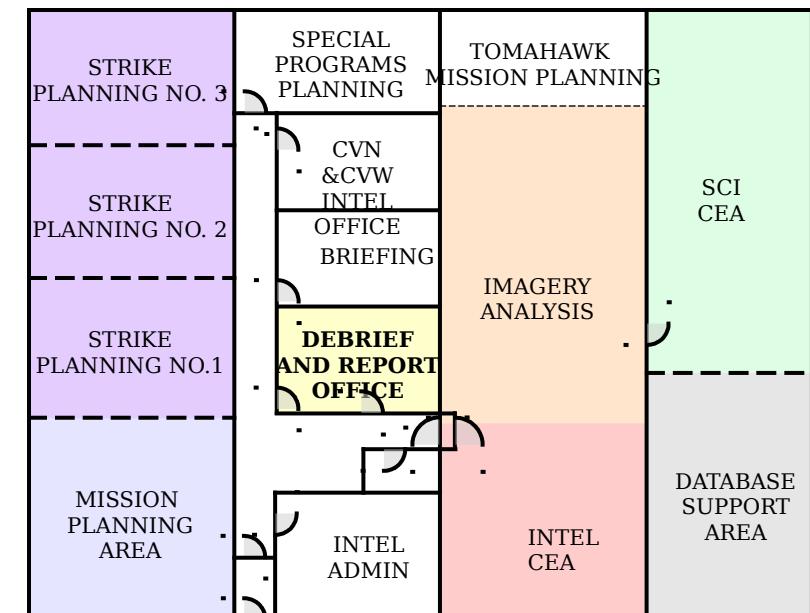


# NSWPC PIF and the CVN-68 CVIC



**PIF replicates CVIC functionality**

- Integrate, test installed configuration
- Test facilities “without the ship”
- Train trainers and CVN 68 cadre
- Reduce risk



**CVIC**



# NSWPC “Prime Directive”

- **Decrease Time-to-Plan**
  - **How?**
    - ◆ **Integrate CVIC mission planning information/systems**
    - ◆ **Automatically gather as much information prior to strike planning as possible**
    - ◆ **Organize information in a logical manner**
    - ◆ **Automate generation of briefing and kneeboard cards**
    - ◆ **Use previous plans and planning materials as a basis for new ones**

All Done Within the SPF



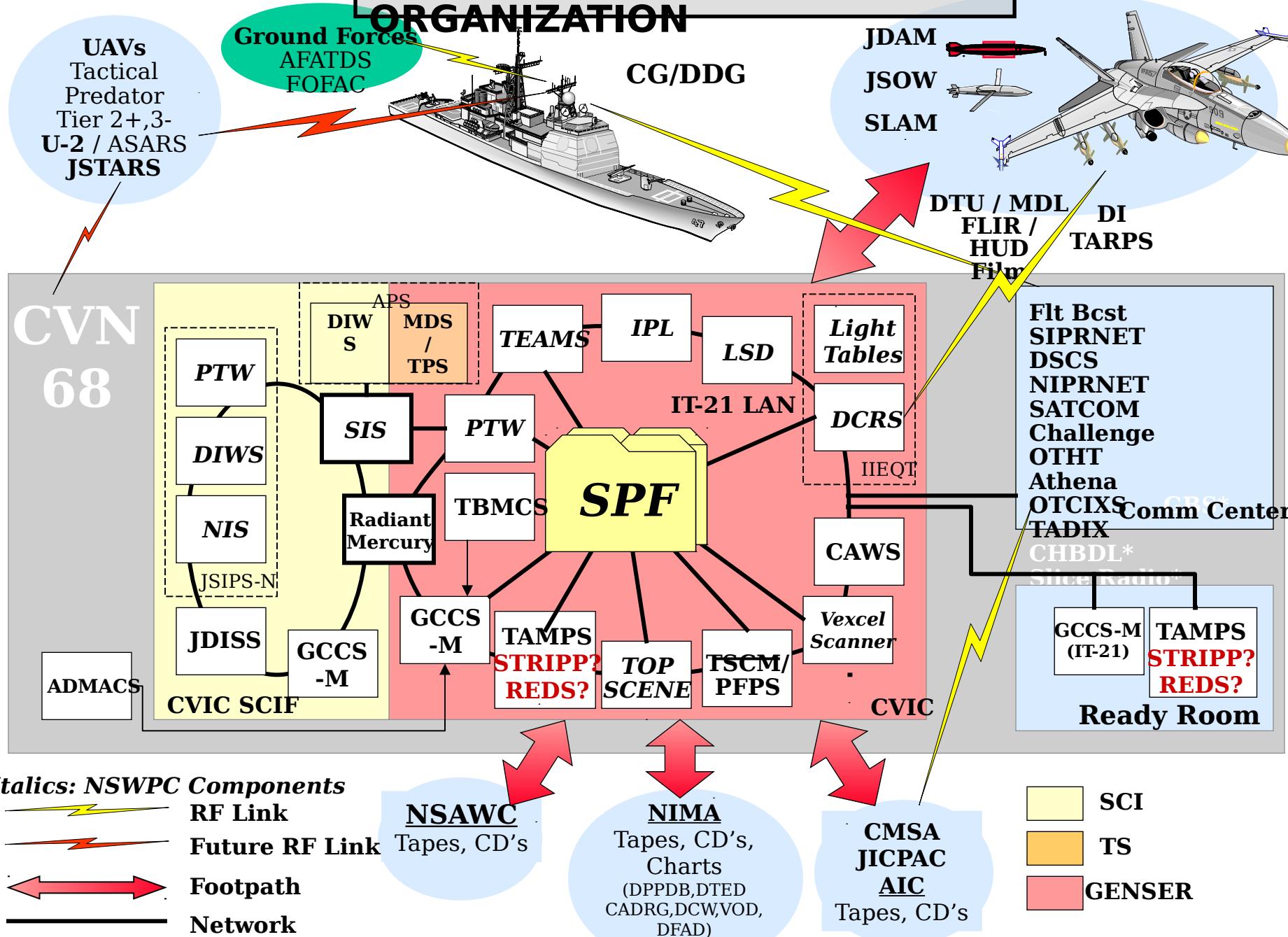
# NSWPC Result

Create a medium for planners and other decision makers to plan in a distributive and collaborative manner

- **Strike Planning Folder (SPF)**

- SPF Information Concept underlies future Tool Sets
- Can reside on any server
- Common information interchange formats

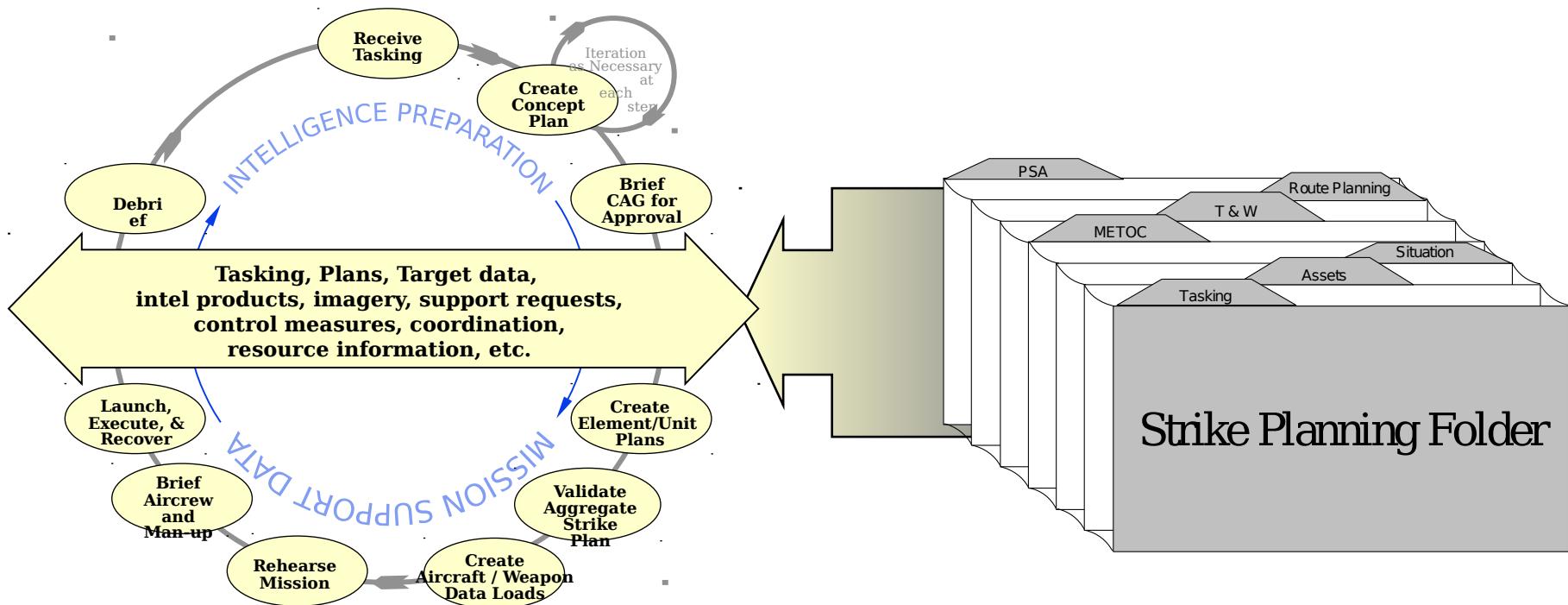
# NSWPC PHASE I ORGANIZATION





# Strike Planning Folder (SPF)

- System of software, web servers, and databases that collects strike planning information from NSWPC components and other systems and enables users to access that information electronically from their workstations.



Addresses Warfighter's #1 problem - information for decision making



# What SPF Does

- **Gathers, displays, and manages Strike Planning information from stovepipe systems**
- **Provides users a common planning picture**
- **Provides accessibility from any browser-equipped workstation**
  - SPF is web-designed
- **Contains two major categories of information:**
  - Global - Information applicable to all missions (TACPROs, Intel assessments, ROE, reference material, etc.)
  - Plan Specific - Mission specific info (Routes, targeting & weaponeering info, briefs, kneeboard cards etc.)
- **Creates one folder per mission**
  - Can be created from ATO info, existing folders, or ad hoc (contingency plans)
  - Folders can be archived and exchanged with other SPF-equipped ships



# What SPF Does *not* do

- **SPF does not add new functionality**
  - SPF does capture the results of conversations between people/machines
- **SPF does not create data**
  - SPF does gather data and provides it to strikers prior to planning
- **SPF does not manipulate data**
  - SPF acts as a repository of information for strikers to retrieve that information and use it as they see fit
- **SPF does not change the way planners perform strike planning**
  - SPF offers a medium for which the strikers can do the job they are trained to do



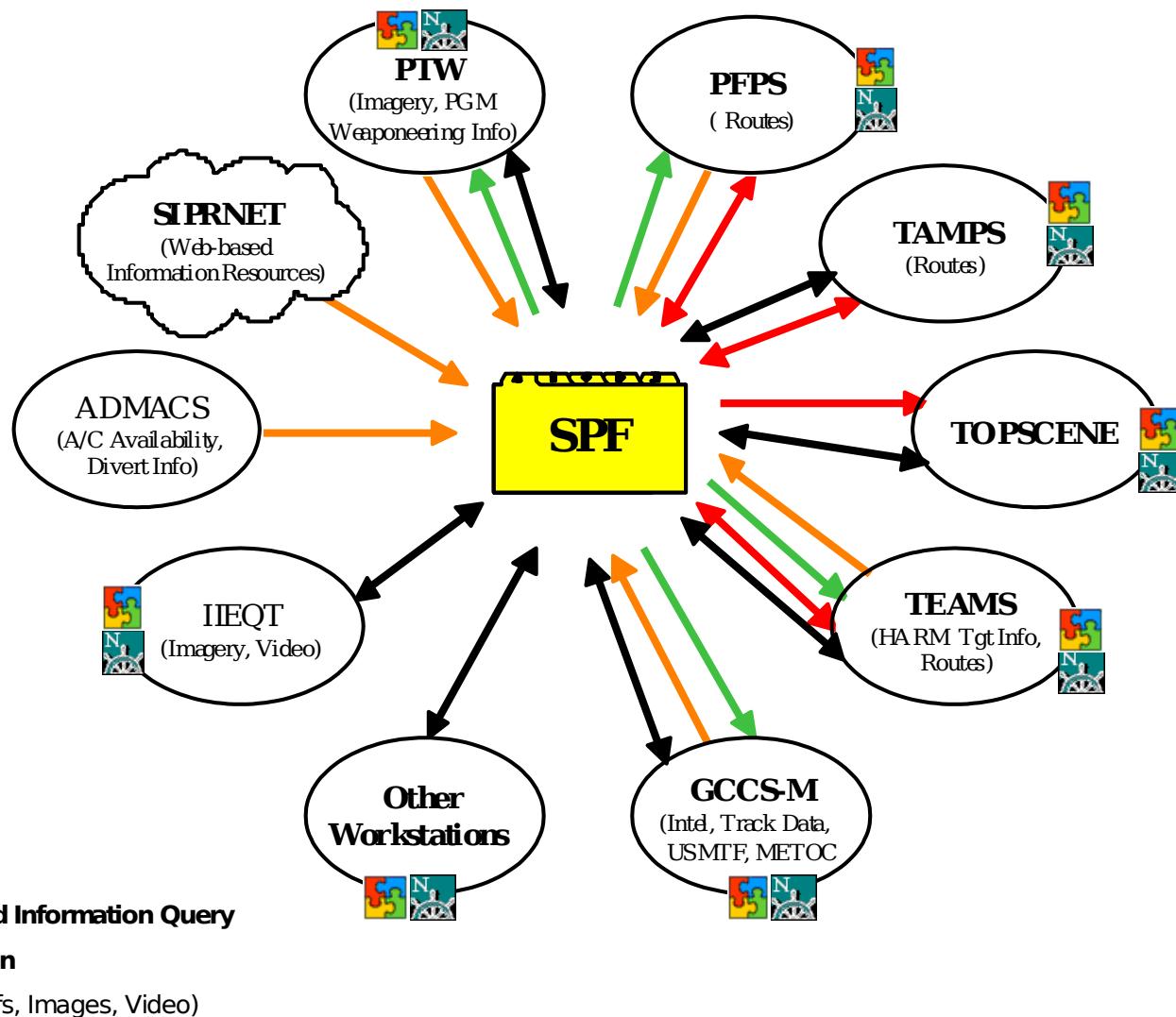
# SPF Design

- **Designed from the start with inputs from NSAWC**
  - CONOPS development
  - Requirement definition and prioritization
  - Based on NSAWC Strike Planning information organization
  - Follows “Windows-like” interface paradigm as much as possible

**User inputs to be incorporated into follow-on builds**

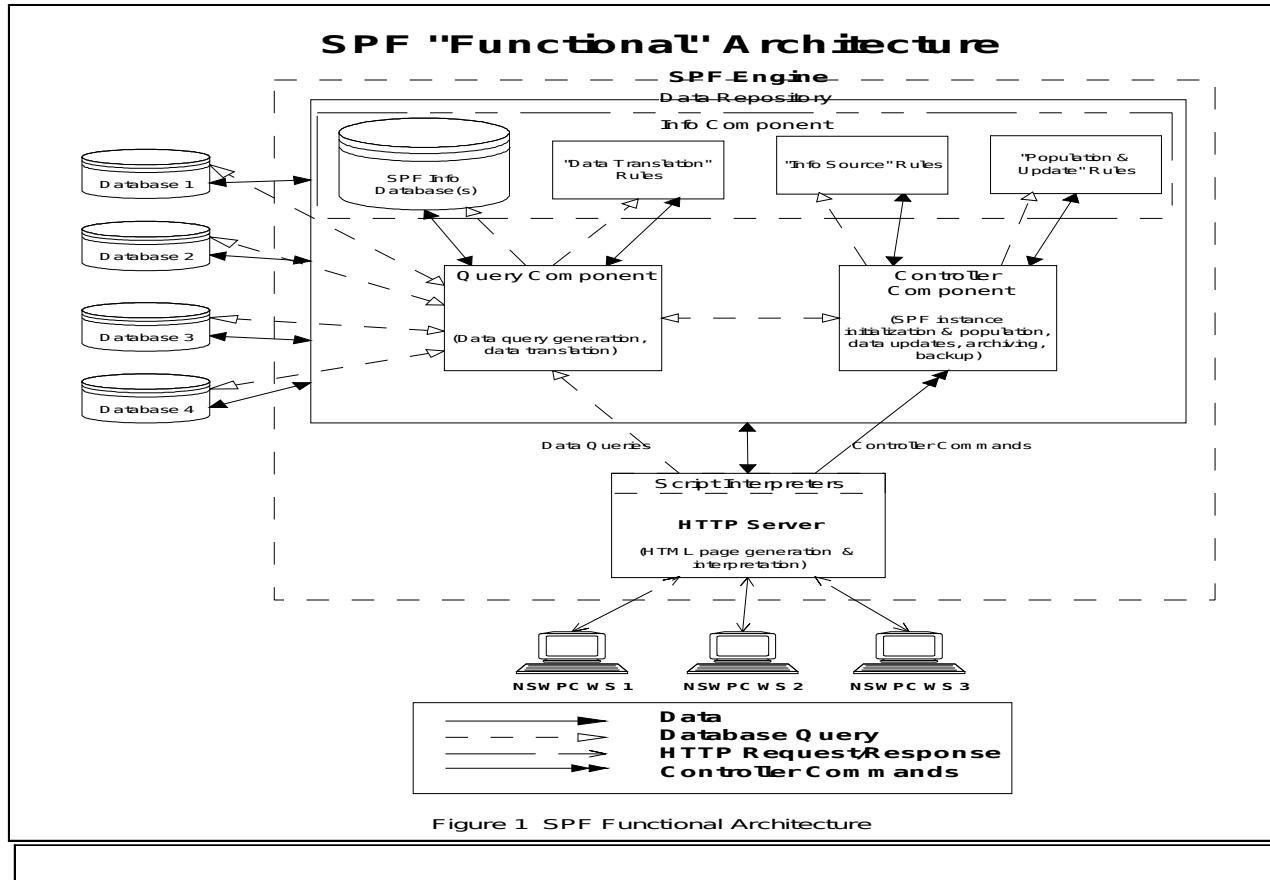


# SPF Information Interfaces



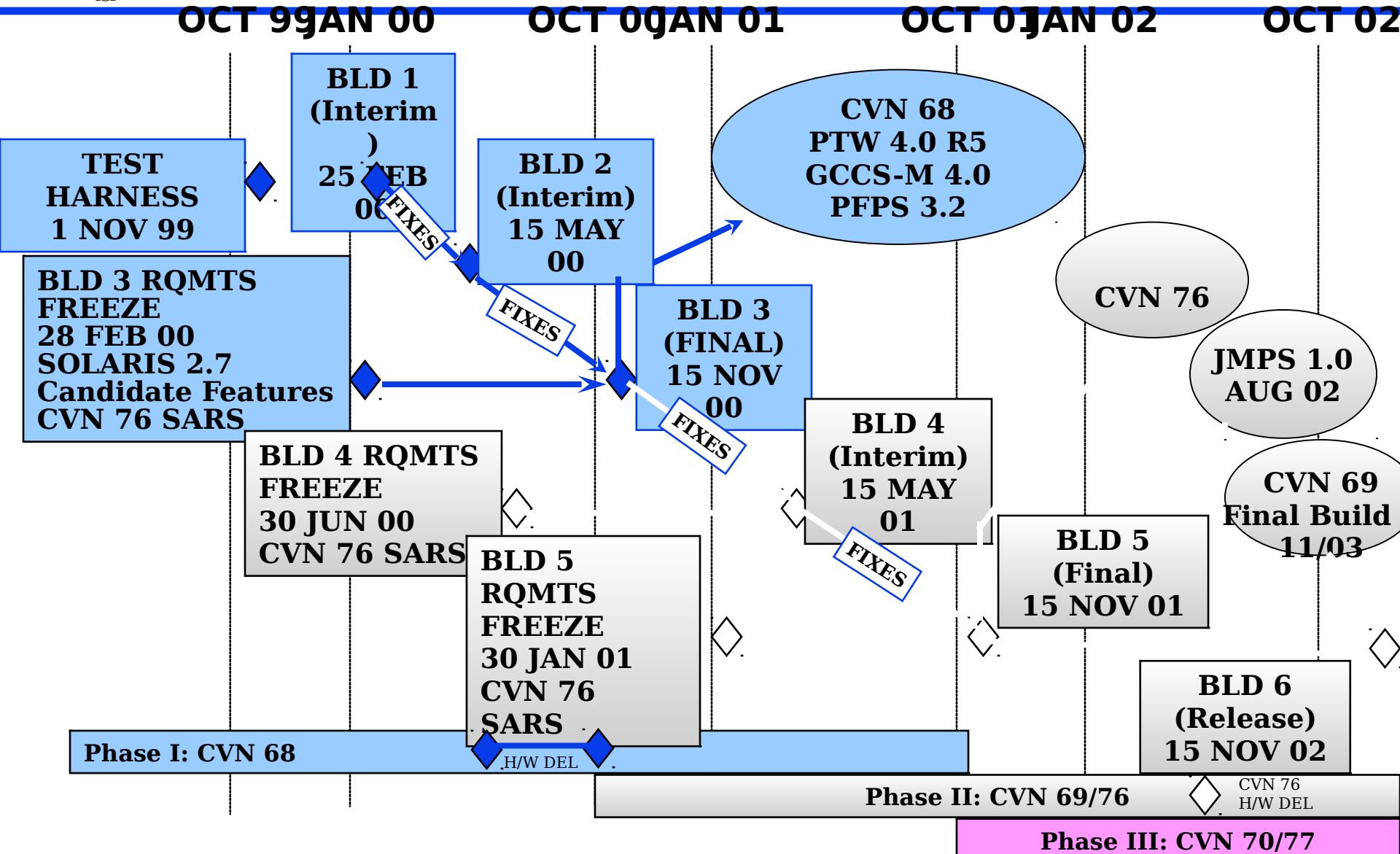


# SPF Functional Architecture





# SPF Build Plans





# Summa ry

**NSWPC goal is to integrate information to plan Naval strike**

- **NSWPC integrates information management technologies now and into the future**
- **SPF Addresses Warfighter's #1 problem-efficient information management for timely decision making by networking existing tools**
- **Heavy dependence on interfaces with current and future mission planning and intelligence gathering sources**

**NSWPC is today's answer to the Information Management tool for the Naval Strike Planner**



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email: [julieta.booz@tci.navy.mil](mailto:julieta.booz@tci.navy.mil)**



# Backup Slides



# Strike Planning Folder

**Spf Login - Netscape**

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: <http://spf02/servlet/login> What's Related

Spf Login Msn Plng Weather Map Support Safety/NATOPS Navy Dept News Hardware

## Strike Planning Folder

User Name :

Password :

Login Clear

?

Copyright © 1999, 2000 BAE SYSTEMS  
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The page displays a login interface for the Strike Planning Folder. It features a central text input field for 'User Name' and a password input field. Below these are 'Login' and 'Clear' buttons. The background is light gray and contains several military aircraft insignias arranged in a grid-like pattern. At the bottom center is a small yellow question mark icon. The bottom of the window shows the standard Netscape browser menu bar and toolbar.



# SPF Home Page

**SPF Home - Netscape**

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: <http://spf02/servlet/home> What's Related

Spf Login Msn Plng Weather Map Support Safety/NATOPS Navy Dept News Hardware

## SPF Home Page

[Create Folder](#) Creates a new Folder from ATO, Non-ATO, or Existing Folder data.

[Open Folder](#) Identifies and opens an existing Folder for viewing or editing.

[Global Information](#) Provides direct access to Folder data that is global to every Strike Plan.

[SPF Admin](#) Used to edit SPF data and strike team information. Available only to SPF administrators.

[User Preferences](#) Used to change the User password and set other preferences.

[Mission Debrief](#) Opens the debrief page which contains strike debriefs and templates.

[Help](#) Click here for help.

[About](#) Displays version information.

[Exit](#) Exits the SPF system and returns to the login page.

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United States Government Unlimited Rights

Document: Done

Start E:\spf\_scmsnaps SPF Home - Netscape Microsoft PowerPoint - [scr...]

1:43 PM



# Air Tasking Order Request

test3 - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: http://spf02/servlet/folder

Spf Login Msn Plng Weather Map Support Safety/NATOPS Navy Dept News

test3

Home IFL Mail Help ?

**Create Assistant**

UniqueName	Status
Air Tasking Order	not executed
Description	not executed
Target Location(s)	not executed
Target Information Request	not executed

Hide for this Session Dismiss

**Select ATO for Folder Population**

DTG	OPER/EXER Name	Begin	End	AsOf	Change
011230Z MAR 1999	BASELINE 99	010001Z MAR 1999	302330Z MAR 1999	161545Z MAR 1999	--
011430Z MAR 1999	ATO TECH REVIEW ...	010600Z OCT 1999	020600Z OCT 1999	302100Z SEP 1999	--
011530Z MAR 1999	DESERT WIND	010600Z OCT 1998	020559Z OCT 1998	302100Z SEP 1998	CHG 0

**ATO:** VZCZCOSS001  
RAAUZYUW RUENOSS0001 0630006-UUUU--ROSSCVA.  
ZNR UUUUU  
R 030006Z MAR 00  
FM NCTSI  
TO TEST DEVICE  
BT  
UNCLAS  
OPER/BASELINE 99//

<Prev Next> Cancel

Last Modified:  
Last Modified by:  
Originator:

Folder Status: None

Applet com.baesystems.applet.DynamicAppletLoader started

Start E:\spf\_scmsnaps test3 - Netscape Microsoft PowerPoint - [scr...]

1:49 PM



# Actual ATO

test3 - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: http://spf02/servlet/folder

Spf Login Msn Plng Weather Map Support Safety/NATOPS Navy Dept News Hardw

test3

Home Internet Explorer Mail Help ?

test3

- Description
- Origination
- Change Folder Status
- Area of Interest
- Air Tasking Order**
- Strike Team
- Notify Team Members
- Import From Existing
- Save As
- Final Brief
- Kneeborder Cards
- Tasking
- Assets
- Situation
- METOC
- Targeting & Weaponeering
- Route Planning
- Post Strike Analysis

**Create Assistant**

UniqueName	Status
Air Tasking Order	not executed
Description	not executed
Target Location(s)	not executed
Target Information Request	not executed

Hide for this Session

**Include From ATO**

Filters  
Country: \*\*\*\*  
Service: \*  
Unit: \*\*\*\*\*

DESERT WIND

- + Package: AN
- + Package: AAF
- + Package: -
- + Mission: 22336651
- + Mission: 11223344

Add >> << Remove

DESERT WIND

- + Package: AN

Raw Ato

```
EXER/DESERT WIND//  
MSGID/ATO/USCENTCOM/ATO A/OCT/CHG/0//  
AKNLDG/YES//  
TIMEFRAM/FROM:010600Z0CT1998/T0:020559Z0CT1998/ASOF:302100ZSEP1998//  
HEADING/TASKING//  
TSKCMTRY/US//  
SVCTASK/N//  
TASKUNIT/CVN68 VFA-22/ICAO:NMTZ//  
AMSDAT/01111/-/AN/MC/INT//  
MSNACFT/3/ACTYP:FA18C/TALON 11/2GBU/-/20111/30111//  
ARINFO/APPLE 20/4010A/34010/NAME:BLUE TRACK/200/ARCT:010815Z  
/NDAR:010845Z0CT/KLBS:30.0/PFREQ:343.3/SFREQ:277.8/ACTYP:KC10/CDT/2  
/TNKR:1/18-81/2-2-3//  
1MSMRT
```

<Prev Next> Cancel

Last Modified: *[Redacted]* Last Modified by: *[Redacted]* Folder Status: None

Start PPFS Task Manager (Pres...) Microsoft PowerPoint - [scr... test3 - Netscape Microsoft Office Shortcut Bar 10:47 AM



# SPF Area of Interest

**test3 - Netscape**

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: http://spf02/servlet/folder

Spf Login Msn Plng Weather Map Support Safety/NATOPS Navy Dept News Hardw

**test3**

Home Internet Mail Help ?

test3

- Description
- Origination
- Change Folder Status
- Area of Interest**
- Air Tasking Order
- Strike Team
- Notify Team Members
- Import From Existing
- Save As
- Final Brief
- Kneeborder Cards
- Tasking
  - SPINS
- General
  - Strike Objective
  - Target Location(s)
  - Target Information Request
  - Strike Package Tasking
- Briefs
- Assets
- Situation
- METOC
- Targeting & Weaponizing
- Route Planning
- Post Strike Analysis

**Area Of Interest Coordinates**

Target Location: Latitude 35:47:37.9N (DD:MM:SS.TH)  
Longitude 047:38:15.0E (DD:MM:SS.TH)

Ship Location: Latitude 34:46:59.9N (DD:MM:SS.TH)  
Longitude 046:00:00.0E (DD:MM:SS.TH)

Margin 100.0 (NM)

**Area Of Interest Region**

Upper Latitude 37:27:47.4N (DD:MM:SS.TH)

Left Longitude 043:15:47.8E Right Longitude 050:22:27.1E

Lower Latitude 33:06:50.4N (DD:MM:SS.TH)

OK Cancel

Last Modified: 031547Z MAR 2000  
Last Modified by: pschmidt  
Originator:

Folder Status: In Work

Applet com.baesystems.applet.DynamicAppletLoader started

Start PFPS Task Manager (Pres...) Microsoft PowerPoint - [scr... test3 - Netscape Microsoft Office Shortcut Bar 10:50 AM



# SPF MIDB Data Update

test3 - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: http://spf02/servlet/folder

Spf Login Msn Plng Weather Map Support Safety/NATOPS Navy Dept News Hardw

test3

Home IFL Weather Map Support Safety/NATOPS Navy Dept News Hardw

**MIDB Data Update**

Do Full Query of MIDB and save to SPF:

EW/GCI Locations       Observers and Reporting Posts  
 SAM/AAA Types       Ground Forces  
 Airbase Locations       All Of The Above

OK

UniqueName Status

UniqueName	Status
Target Location(s)	completed
Target Information Request	completed
Area of Interest	completed
MIDB Data Update	not executed

Hide for this Session Dismiss

Applet com.baesystems.applet.DynamicAppleLoader started

Start PFPS Task Manager (Pres...) Microsoft PowerPoint - [scr... test3 - Netscape Microsoft Office Shortcut Bar 10:51 AM



# MIDB Query Response

Screenshot of a computer desktop showing the "test3 - Netscape" browser window and a "Create Assistant" dialog box.

The browser window displays a sidebar menu and a main content area titled "MIDB Data Update".

**Sidebar Menu:**

- test3
- Home
- Search
- Netscape
- Print
- Security
- Shop
- Stop
- Bookmarks
- Location: http://spf02/servlet/folder
- Spf Login
- Msn Plng
- Weather
- Map Support
- Safety/NATOPS
- Navy Dept
- News
- Hardw

**Main Content Area:**

**MIDB Data Update**

**Do Full Query of MIDB and save to SPF:**

EW/GCI Locations       Observers and Reporting Posts  
 SAM/AAA Types       Ground Forces  
 Airbase Locations

**Query Results**

EW/GCI: 142 records replaced existing 0 records in SPF database.  
SAM/AAA: 371 records replaced existing 0 records in SPF database.  
Airbase: 78 records replaced existing 0 records in SPF database.  
Observers: 4 records replaced existing 0 records in SPF database.  
Ground Force: Could not get data from MIDB. No change to SPF database.

**Create Assistant Dialog Box:**

UniqueName	Status
Target Location(s)	completed
Target Information Request	completed
Area of Interest	completed
MIDB Data Update	not executed

Hide for this Session      **Dismiss**

**Taskbar:**

- Start
- PFPS Task Manager (Pres...)
- Microsoft PowerPoint - [scr...]
- test3 - Netscape
- Microsoft Office Shortcut Bar

10:55 AM



# SPF Strike Team Info

**test3 - Netscape**

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: <http://spf02/servlet/folder>

Spf Login Msn Ping Weather Map Support Safety/NATOPS Navy Dept News Hardw

**test3**

Home IFL Mail Help ?

**Strike Team Composition**

Last Name	First Name	Rank	Role	Squadron	Permission
Schmidt	Paul		Strike Leader	Unknown	Admin
Lakes	Elvoid		Element Leader	Unknown	Admin
Ifarragueiri	Carlos		Element Leader	Unknown	Admin
Flowers	Tony		Strike Team Member	Unknown	Admin
Smith	Tammy		Intelligence Personnel	Unknown	Admin

Add/Modify Team

Edit Role

Name : Smith, Tammy

Role : Intelligence Personnel

Last Modified: 031557Z MAR 2000

Last Modified by: pschmidt

Originator: pschmidt

OK Cancel

Folder Status: In Work

Document: Done

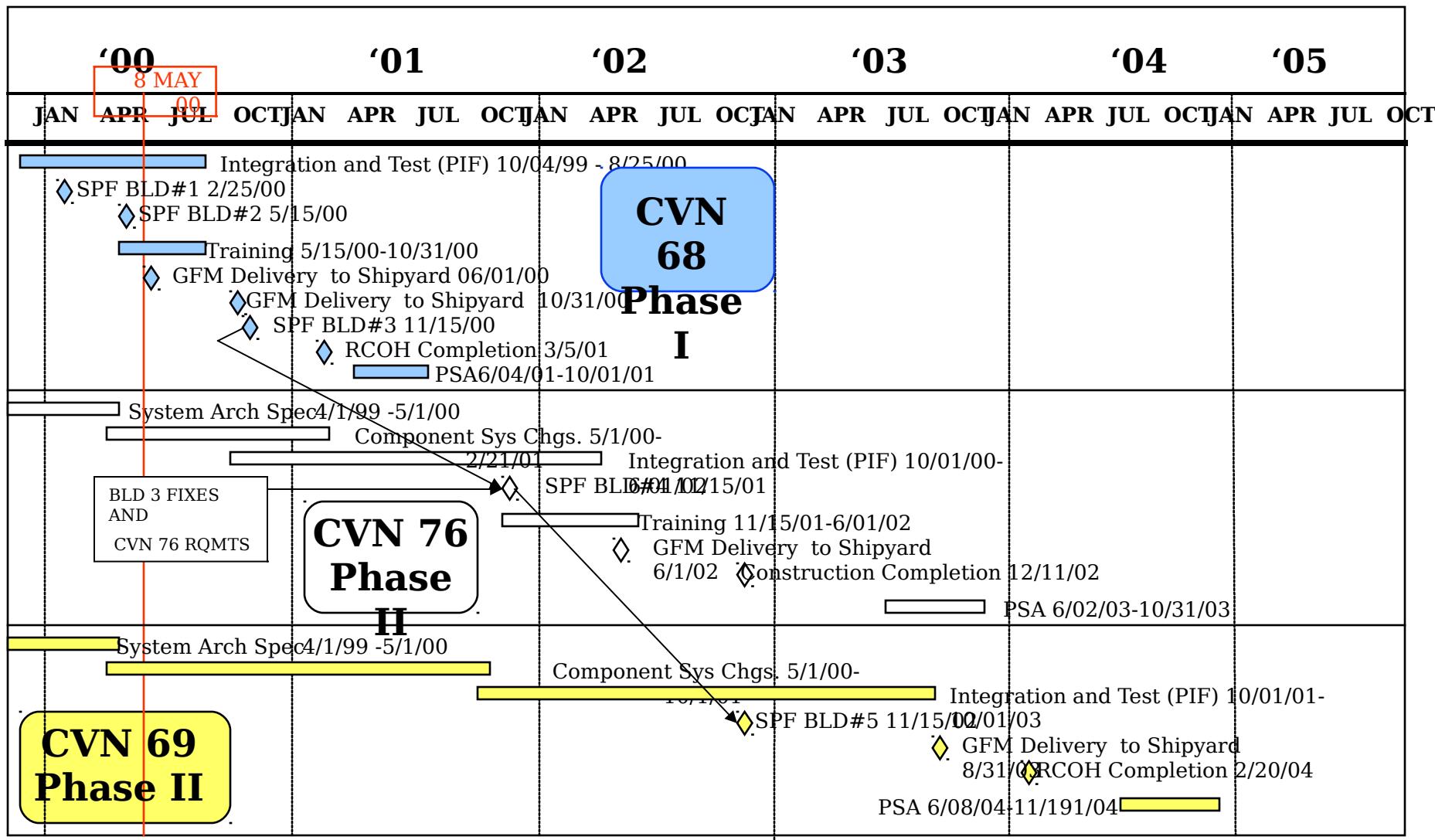
Start PFPS Task Manager [Pres... Microsoft PowerPoint - [scr... test3 - Netscape Microsoft Office Shortcut Bar

11:00 AM



# NSWPC

## Current Schedules





# SPF - PTW 4.0 Connection

- **Rapid PGM targeteering and weaponeering is one of the most important issues faced today**
- **GENSER PTW 4.0 hosts SPF web server**
  - Targeting/PGM weaponeering and mission planning information co-located
  - Large storage capacity (How many SPFs need to be held?)
  - Enterprise-strength server hardware



# Proposed Future SPF Capabilities

- Improve shipboard production capabilities
- Integration with Fleet Preferred Planning Tools
- Automate information management
- Install on all large deck ships
- Extend SPF to other warfare areas (NSFS, ARG/MEU, etc.) and Services for better communication & coordination
- Fleet centralized repository for Strike Plans
- All Builds follow NSAWC planning process



# Automate Info Mgmt to Accelerate Planning and Facilitate Rapid Re-Targeting

- At 26/27 Oct 99 Conference all aircrew stated a requirement need for:
  - Automatic gathering of information at tasking
  - Automatic update of information during planning
  - Automatic flow-down correction of information (change a turnpoint on a route planner, and the change is reflected in the kneeboard cards)
  - Automatic fusion of Intel
  - Automatic generation of kneeboard cards & briefing slides
  - Automatic parsing of standard messages (ATO,ACO)
  - Automatic generation of MISREPS, etc., from online debriefing



# SPF Build 1

- **Delivered February 28, 2000**
- **Includes all SPF Build 0 functionality**
- **Includes all Test Harness functionality**
- **Adds the MIDB interface to access threat information**
- **Adds the TMS interface to access Blue Force information**
- **Adds capability to interface and process CRD formatted files**
- **Implements limited automatic pull of information**

**Build 1 Verification Testing 2/1/00-5/15/00**



# SPF Build 2

- **Delivery Date May 15, 2000**
- **Includes all SPF Build 1 functionality**
- **Adds Archiving function**
- **Adds “Save as” function**
- **Adds e-mail capability**
- **Adds external SPF interfaces, including ADMACS, PTW, MetCast, and remaining USMTF messages**

**Build 2 Verification Testing 5/16/00-10/04/00**



# SPF Build 3

- **Delivery Date November 15, 2000**
- **Includes all SPF Build 2 functionality**
- **Solaris 2.7 UNIX Operating System**
- **Adds fleet desired items from “Candidate Features List” (e.g.map and overlay mgmt,export overlay file, diagnostics, template-to-product creation, etc.)**

**Build 3 Verification Testing 10/05/00-3/02/01**



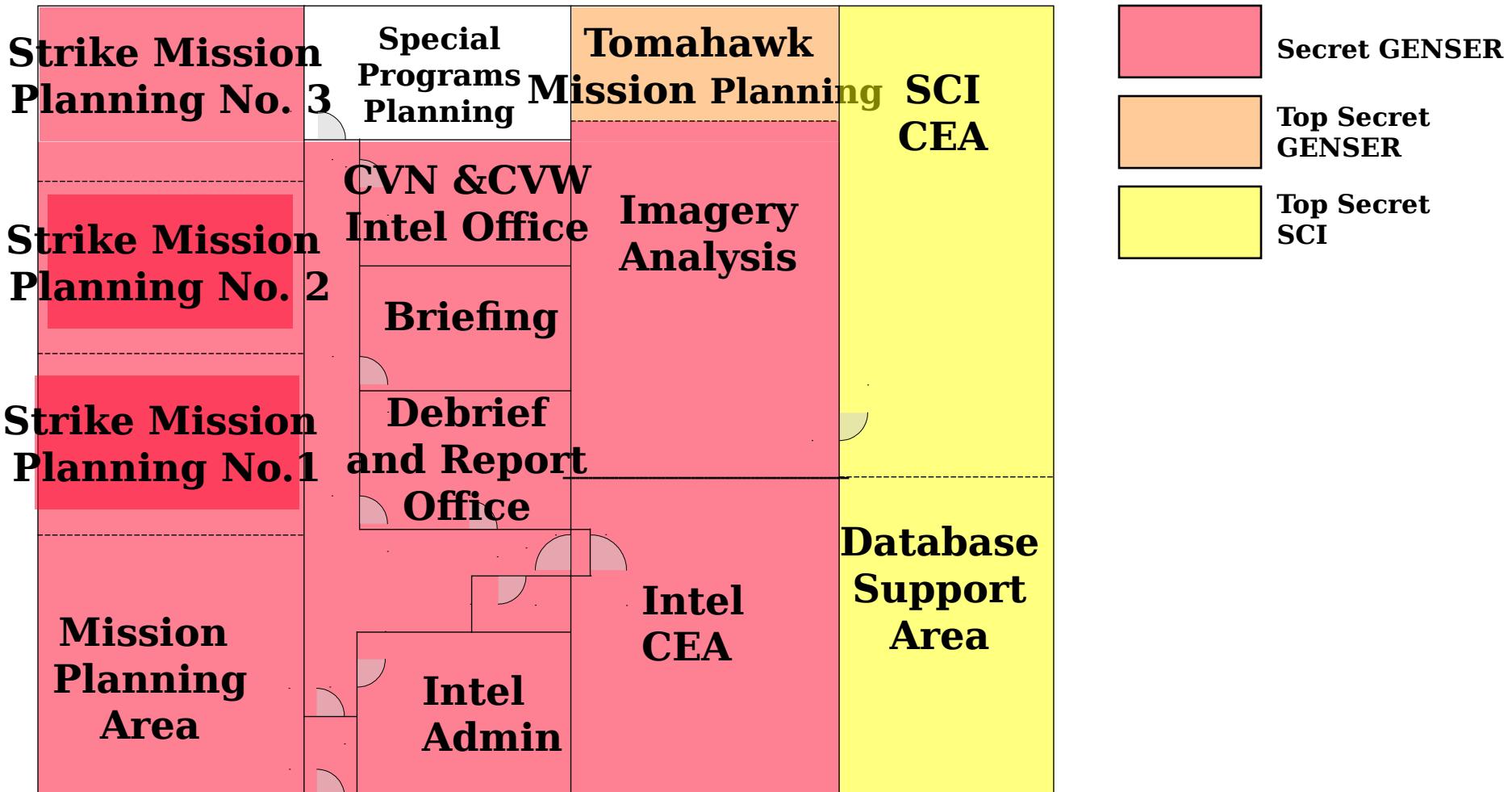
# SPF Build 4

- **Delivery Date November 15, 2001**
- **Includes all SPF Build 3 functionality**
- **Includes CVN-76 System Architecture Requirements (SARS)**
- **Requirements freeze July 30, 2000**

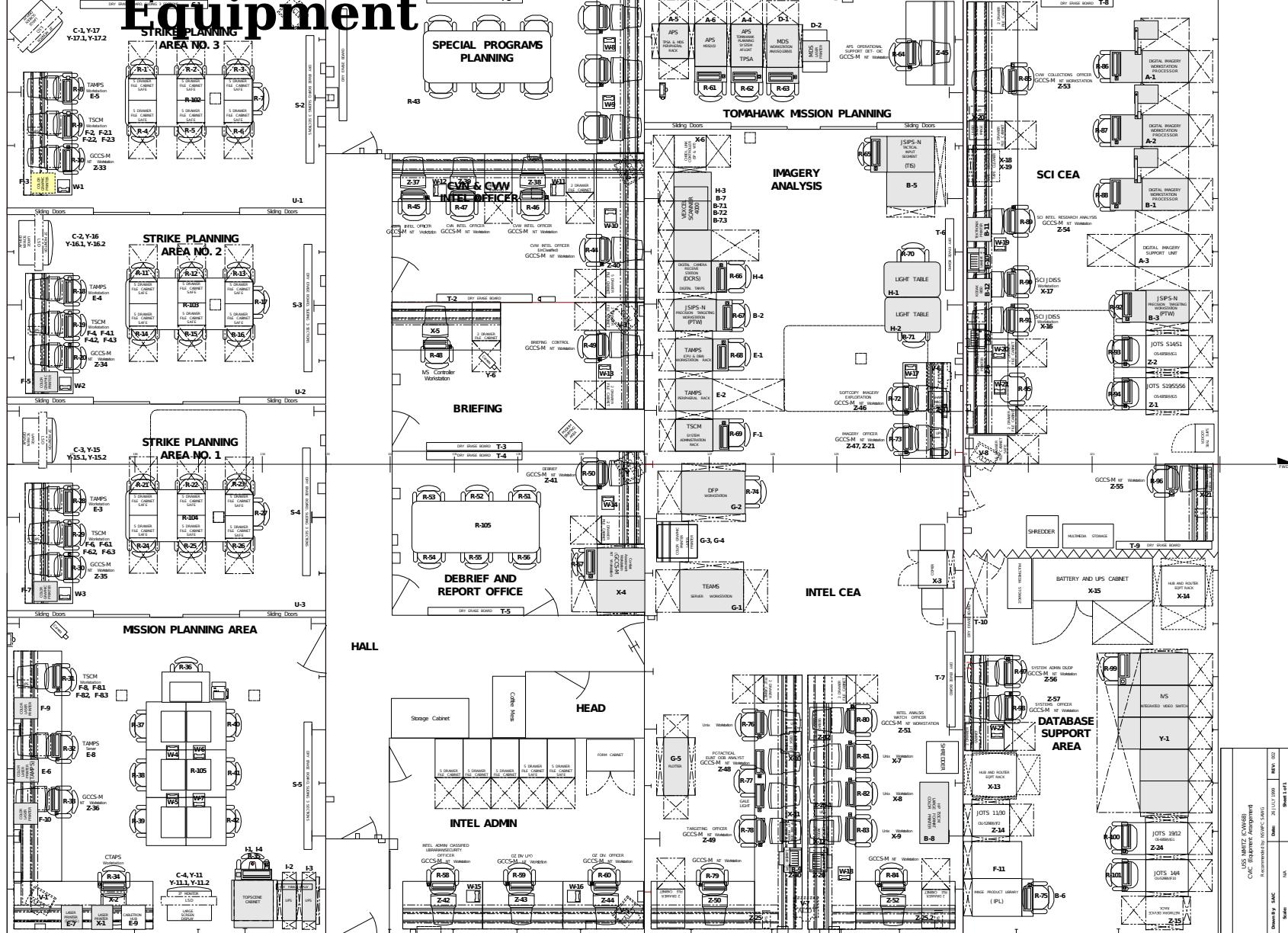
**Build 4 Verification Testing TBD**



# CVIC Layout



# CVN 68 General Arrangement of Equipment



Note: An Large Screen Display (LSD) installation includes Speakers and a RSTU.

CMS UNIT 17	DRY STANDBY BOARD	DRY STANDBY BOARD
DRY STANDBY BOARD	CMS UNIT 17	DRY STANDBY BOARD
DRY STANDBY BOARD	DRY STANDBY BOARD	CMS UNIT 17
DRY STANDBY BOARD	DRY STANDBY BOARD	DRY STANDBY BOARD
DRY STANDBY BOARD	DRY STANDBY BOARD	DRY STANDBY BOARD

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